

Interpretation of the presence of noxious weeds in relation to Standards for Healthy Rangeland Determinations.

The following points should be considered when standards determinations are made.

1. Determining the impact of noxious weeds on rangeland health is largely a matter of judgement. In most cases, the presence alone of a weed is not sufficient to make a "not meeting" determination. However, in making any determination, we need to consider how extensive the infestation, what species are present, and whether treatment and/or management is occurring or in place.
2. Areas where the presence of weeds is a driving force concerning overall rangeland management would generally be considered "not meeting" standards.
3. Plant communities with weeds that are otherwise healthy would generally be considered "meeting" standards if weeds are not considered a potential threat to rangeland health (if the weeds are being contained and eradicated).
4. The type of noxious weeds should be considered. An aggressive potentially dominating plant such as leafy spurge might warrant a "not meeting" determination simply by its mere presence. (See attached list of potential problem plants. This is just a partial list of the 300 to 400 exotic plants that could impact native rangelands.) In contrast, the scattered occurrence of Canada thistle in an otherwise healthy riparian plant community would in most cases warrant a "meeting" standards determination.

Impacts from the presence of exotic plants are severe, usually long term and often permanent. New infestations of weeds do constitute an emergency that requires action. If noxious weeds are found then the health of the rangelands is in danger. **If the weeds are present in such numbers that eradication is not possible in the short term (2 years) then the determination should be made that the standards are not being met.** If the presence of exotic vegetation impacts management over the long term of 2 or more years then the standards and guidelines are not being met.

What Weeds do you need to consider when looking at the impact of noxious weeds on rangeland health?

The definition of "weed" is always debatable. Traditional definitions include "plants out of place" or "plants that by their presence conflict with management objectives for the site." The definition included here also tries to incorporate the concepts of public land health and sustain ability. A weed is defined as "a non-native plant that disrupts or has the potential to disrupt or alter the natural ecosystem function, composition, and diversity of the site it occupies. Its presence deteriorates the health of the site, it makes efficient use of natural resources difficult, and it may interfere with management objectives for that site. It is an invasive species that requires a concerted effort (manpower and resources) to remove from its current location, if it can be removed at all." This definition is adapted from Noss and Cooperider (1994) and Beck (personal communication).

"Noxious" weeds refer to those plant species which have been legally designated as unwanted or undesirable. This includes national, state, and county or local designations. According to the Federal Noxious Weed Law, native plant species are not designated "noxious." Native plant species that may be of a management concern, such as poisonous plants or desert shrub and sub-shrub species are not considered priorities for noxious weed work.

All weeds are not of equal importance for management. The focus of this list is on exotic species that are highly invasive in natural systems. Those species that are of a concern in agricultural situations, but do not pose a threat to rangelands, forest lands, and wetlands have not been included. Many annual forbs have not been included. Exotic species typically used in range restoration which are known to be invasive have not been included. Invasive annual grasses which disrupt natural ecosystem functions have been included. It is important to keep in mind that the Wyoming Department of Agriculture has listed about 22 noxious weeds considered to be a threat and these should be where BLM's focus is regardless of their influence on rangeland health.

<u>Scientific Name</u>	<u>Common Name</u>	<u>Family</u>
Grasses		
<i>Aegilops cylindrica</i>	jointed goatgrass	Poaceae
<i>Ammophila arenaria</i>	European beachgrass	Poaceae
<i>Arundo dorax</i>	giant reed	Poaceae
<i>Bromus diandrus</i>	ripgut brome	Poaceae
<i>Bromus japonicus</i>	Japanese brome	Poaceae
<i>Bromus mollis</i>	soft brome	Poaceae

<i>Bromus tectorum</i>	downy brome	Poaceae
<i>Cortaderia jubata</i>	Andean pampasgrass	Poaceae
<i>Cortaderia selloana</i>	pampasgrass	Poaceae
<i>Cynodon dactylon</i>	bermudagrass	Poaceae
<i>Elytrigia repens</i>	quackgrass	Poaceae
<i>Milium vernale</i>	milium	Poaceae
<i>Nardus stricta</i>	matgrass	Poaceae
<i>Panicum miliaceum</i>	wild proso millet	Poaceae
<i>Pennisetum setaceum</i>	crimson fountain grass	Poaceae
<i>Schismus barbatus</i>	mediterranean grass	Poaceae
<i>Sorghum halepense</i>	johnsongrass	Poaceae
<i>Taeniatherum caput-medusae</i>	medusa-head	Poaceae

Forbs

<i>Acroptilon repens</i>	Russian knapweed	Asteraceae
<i>Anthemis cotula</i>	mayweed chamomile	Asteraceae
<i>Arctium minus</i>	common burdock	Asteraceae
<i>Campanula rapunculoides</i>	creeping bellflower	Campanulaceae
<i>Cardaria chalepensis</i>	lens-podded whitetop	Brassicaceae
<i>Cardaria draba</i>	hoary cress	Brassicaceae
<i>Cardaria pubescens</i>	hairy whitetop	Brassicaceae
<i>Carduus acanthoides</i>	plumeless thistle	Asteraceae
<i>Carduus nutans</i>	musk thistle	Asteraceae
<i>Carduus pycnocephalus</i>	Italian thistle	Asteraceae
<i>Carduus teniflorus</i>	slender-flowered thistle	Asteraceae
<i>Carpobrotus edulis</i>	hottentot fig	Aizoaceae
<i>Carpobrotus chilensis</i>	sea iceplant	Aizoaceae
<i>Carthamus lantus</i>	distaff thistle	Asteraceae
<i>Carum carvi</i>	common caraway	Apiaceae
<i>Centaurea calcitrapa</i>	purple starthistle	Asteraceae
<i>Centaurea cyanus</i>	cornflower	Asteraceae
<i>Centaurea diffusa</i>	diffuse knapweed	Asteraceae
<i>Centaurea iberica</i>	Iberian starthistle	Asteraceae
<i>Centaurea jacea</i>	brown knapweed	Asteraceae
<i>Centaurea macrocephala</i>	bighead knapweed	Asteraceae
<i>Centaurea maculosa</i>	spotted knapweed	Asteraceae
<i>Centaurea melitenensis</i>	malta starthistle	Asteraceae
<i>Centaurea montana</i>	mountain cornflower	Asteraceae
<i>Centaurea nigra</i>	black knapweed	Asteraceae
<i>Centaurea nigrescens</i>	Vochin knapweed	Asteraceae
<i>Centaurea pratensis</i>	meadow knapweed	Asteraceae
<i>Centaurea squarrosa</i>	squarrose knapweed	Asteraceae
<i>Centaurea solstitialis</i>	yellow starthistle	Asteraceae

<i>Centaurea trichocephala</i>	feather-headed knapweed	Asteraceae
<i>Chondrilla juncea</i>	rush skeletonweed	Asteraceae
<i>Chrysanthemum leucanthemum</i>	ox-eye daisy	Asteraceae
<i>Cichorium intybus</i>	chicory	Asteraceae
<i>Cirsium vulgare</i>	bull thistle	Asteraceae
<i>Conium maculatum</i>	poison hemlock	Apiaceae
<i>Convolvulus arvensis</i>	field bindweed	Convolvaceae
<i>Crepis setosa</i>	bristly hawkweed	Asteraceae
<i>Crupina vulgaris</i>	common crupina	Asteraceae
<i>Cynoglossum officinale</i>	houndstongue	Boraginaceae
<i>Digitalis purpurea</i>	foxglove	Scrophulariaceae
<i>Dipsacus fullonum</i>	common teasel	Dipsacaceae
<i>Echium vulgare</i>	blueweed	Boraginaceae
<i>Euphorbia esula</i>	leafy spurge	Euphorbiaceae
<i>Galega officinalis</i>	goats rue	Fabaceae
<i>Gypsophila paniculata</i>	baby's breath	Caryophyllaceae
<i>Hesperis matronalis</i>	dame's rocket	Brassicaceae
<i>Hieracium aurantiacum</i>	orange hawkweed	Asteraceae
<i>Hieracium pilosella</i>	mouseear hawkweed	Asteraceae
<i>Hieracium pratense</i>	yellow hawkweed	Asteraceae
<i>Hyoscyamus niger</i>	black henbane	Solanaceae
<i>Hypericum perforatum</i>	common St. Johnswort	Hypericaceae
<i>Hypochaeris radicata</i>	common catsear	Asteraceae
<i>Isatis tinctoria</i>	dyar's woad	Brassicaceae
<i>Knautia arvensis</i>	blue buttons	Dipsacaceae
<i>Lathyrus latifolius</i>	everlasting peavine	Fabaceae
<i>Lepidium latifolium</i>	perennial pepperweed	Brassicaceae
<i>Linaria genistifolia</i> spp. <i>dalmatica</i>	dalmation toadflax	Scrophulariaceae
<i>Linaria vulgaris</i>	yellow toadflax	Scrophulariaceae
<i>Lysimachia vulgaris</i>	garden loosestrife	Primulaceae
<i>Lythrum salicaria</i>	purple loosestrife	Lythraceae
<i>Lythrum virgatum</i>	wand loosestrife	Lythraceae
<i>Onopordum acanthium</i>	Scotch thistle	Asteraceae
<i>Onopordum taricum</i>	Scotch thistle	Asteraceae
<i>Peganum harmala</i>	African rue	Zygophyllaceae
<i>Potentilla recta</i>	sulphur cinquefoil	Rosaceae
<i>Salvia aethiopsis</i>	Mediterranean sage	Lamiaceae
<i>Saponaria officinalis</i>	bouncing bet	Caryophyllaceae
<i>Senecio jacobaea</i>	tansy ragwort	Asteraceae
<i>Solanum dulcamara</i>	bitter nightshade	Solanaceae
<i>Sonchus arvensis</i>	perennial sowthistle	Asteraceae
<i>Sphaerophysa salsula</i>	swainsonpea	Fabaceae
<i>Tanacetum vulgare</i>	common tansy	Asteraceae

Ulex europaeus
Zygophyllum fabago

gorse
Syrian bean caper

Fabaceae
Zygophyllaceae

Shrubs

Alhagi pseudalhagi
Cynara cardunculus
Cytisus junceum
Cytisus monspessulanas
Cytisus scoparius
Cytisus striatus

camelthorn
artichoke thistle
Spanish broom
French broom
Scotch broom
Portugese broom

Fabaceae
Asteraceae
Fabaceae
Fabaceae
Fabaceae
Fabaceae

Trees*Ailanthus altissima**Elaeagnus angustifolia**Tamarix parviflora**Tamarix ramosissima**Ulmus pumila*

tree-of-heaven

Russian olive

small flower tamarisk

salt cedar

Siberian elm

Simaroubaceae

Elaeagnaceae

Tamaricaceae

Tamaricaceae

Ulmaceae